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Different revenue incentives, different content?

Comparing economic news before and during the financial crisis in German public and commercial news outlets over time

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Abstract:

This study argues that revenue model incentives determine news content. The goal to make profits and the need to sell audiences to advertisers guide journalists' selection and interpretation of newsworthy material and result in commercialised news. We compare the volume, tone, and the obtrusiveness of topics in all economic news stories for the evening TV news of the public broadcasters *ARD* and *ZDF*, the commercial broadcaster *RTL*, and the tabloid newspaper *BILD* from 2002 to 2010 in Germany ($n = 26,467$). Results indicate that news selection is guided by revenue model incentives since economic news differs by volume and topic between public and commercial outlets. News interpretation, i.e., news tone, stronger varies across the media types TV and print. We conclude that advertising income dependency and observation of competitor behavior transmits to operative journalistic practices and decisions, which in turn determine journalistic outcome.

Keywords: Business model, competition, content analysis, economics of media, financial journalism

1. Introduction

Economic goals of media organizations such as profit maximisation can impact journalistic orientation (Beam et al., 2009), programme (Hamilton, 2004), content (Shoemaker and Reese, 1996) and eventually, media performance. On a broader theoretic perspective, organizational goals frame operational practices and decisions within an organization (Kirchner, 2013). Translated to commercial media outlets, the need to sell target audiences to advertisers guides journalistic selection and interpretation and results in *news that's fit to sell* (Hamilton, 2004).

We claim that different revenue incentives cause differences within the content of public versus commercial news outlets. A structural bias in content can be caused by the public or commercial character of the medium (Hofstetter, 1976): Because of the economic goals related to their revenue models, public and commercial media outlets may react with different degrees of commercialized content to the competition for audiences.

In Germany's media system, public TV news have a strong standing. Commercial news outlets compete with the trusted and widely viewed public news. Competition between and among public and commercial media is accompanied by a need for differentiation of media outlets, increased importance of market orientation, and mutual observation of strategic behaviour (Heinrich, 2001b; Siegert and von Rimscha, 2013; Wehmeier, 2001). Germany's media market is considered to be well financed and one of the biggest markets worldwide in newspaper circulation, advertising income, number of journalists and news outlets (Esser and Brüggemann, 2010: 39, 44). Therefore, we consider German TV and newspaper media outlets as a good European case.

In contrast to studies analysing commercialized soft vs. non-commercialized hard news (see overview in Reinemann et al., 2012), this study focuses on commercialization of a *hard* news topic: economic news. In Germany as in other countries, the quantity of economic news coverage of newspapers and TV has

been increasing during the last two decades (Brettschneider, 2003; Maier et al., 2009; Marcinkowski and Marr, 2010; Quiring, 2004) and was exceptionally extensive during the global financial crisis in 2008-9 (Quiring and Weber, 2012; Manning, 2013; Krüger, 2013). Empirically, we compare volume, tone and obtrusiveness in *all* economic news stories from 2002 to 2010 in the public TV news shows *ARD Tagesschau* as well as *ZDF heute*, the commercial TV news show *RTL Aktuell* and the commercial tabloid newspaper *BILD* (n = 26,467). Therefore, this study links the organisational level of the news outlet with changes in journalistic outcome over time.

2. How revenue model incentives influence news content

2.1. The revenue model, audience preferences, and competition

Public and commercial media represent different revenue models and organizational goals. Public media are organized as non-profit organizations and serve as a source of diverse information providing high quality content that supports the development of public opinion (Hoffmann-Riem, 2003). Licence fees ensure information supply according to a programming mandate determined by constitutional law and legal frameworks. Public-service journalistic work is guided by information that audiences *need* to know to negotiate their world (Beam, 1996: 287). However, the constraint to produce content according to the audiences' *preferences* is lower for public than for commercial media (Heinrich, 2001a: 291).

In contrast, commercial media maximize profits and sell audiences to advertisers. Therefore, commercial news should aim to reach a maximum number of audience members advertisers are interested in. Hence, commercial news outlets adapt to the preferences of these target groups (Hamilton, 2004: 189) providing content that a target audience *wants*. This audience orientation 'shifts the focus away from the journalist's expertise and toward the reader's or viewer's informational interests' (Beam, 1996: 287) which results in market- or consumer-driven news reporting (Hamilton, 2004; Picard, 2006).

The consequential 'primary content of newspapers today is commercialized news and features designed to appeal to broad audiences, to entertain, to be cost effective and to maintain readers whose attention can be sold to advertisers' (Picard, 2004: 57).

The situation of a media organization affects the action of the journalist, which in turn determines journalistic outcome (e.g. Reinemann, 2007). Weaver et al. (2007: 94–5) report that the organisational goal to earn high profits is associated with a lower perceived information performance by journalists, i.e., how well their outlet performs in informing the public. Also when profits were more important than the production of good journalism the perceived information performance was lower. However, when the goal was to keep the size of the audience as large as possible, the perceived information performance was higher (Weaver et al., 2007: 95). In a European comparison, Aalberg et al. (2010) reveal that the amount of political information in TV programmes decreases with the amount of commercial channels. Moreover, Esser et al. (2012) find less political information on public channels that depend more heavily on advertising. However, when public TV has a stronger standing in a media system, public and commercial channels offer more news (Aalberg et al., 2010). Therefore, making profits and depending on advertising income decreases information supply. In contrast, public service goals increase information supply.

Competition and resources are crucial determinants of strategic product differentiation (Russi et al. 2014). To maintain the attention of their audiences, Vettehen et al. (2011) reveal that established news providers react on newcomers in the market who increase arousing news characteristics by also increasing arousing characteristics. However, public broadcasters increased fewer arousing news characteristics. Vettehen et al. (2005) point out that the dependency on advertising income of a media organization influences editing routines resulting in a less strong trend towards sensationalism compared to commercial news providers. Due to revenue incentives, the public broadcaster had a weaker need to 'join "the battle of the newscasts"' (Vettehen et al., 2005: 292). Hence, news outlets needing to sell audiences to advertisers select and edit news more strongly sensationalistic.

Consequently, news volume and characteristics vary according to revenue incentives of media organizations that differ according to the degree of competition for audiences in a media system.

2.2. The revenue model, journalistic roles, and news values

Different organizational goals and strategic orientations of public vs. commercial media might also affect how journalists understand their roles and tasks. Weaver et al. (2007) found that roles are partly correlated with the organizational context. If high profits are important to the organization and the organization put emphasis on informing, journalists are more likely to be disseminators.

Cross-national research has suggested that journalistic role conceptions influence news content (van Dalen et al., 2012; Patterson, 1998). Because different roles may affect the value public vs. commercial journalists ascribe to news. News values vary among different news outlets (Kepplinger and Ehmig, 2006; Schulz, 1976). Strömbäck et al. (2012) confirm that differences in journalistic goals exist among public and commercial broadcasters as well as tabloids. However, journalists of public and commercial broadcasters did not behave as expected in their study. The selection criterion, 'the event is dramatic and thrilling' was rated highest by journalists of public broadcasters followed by journalists of tabloids (Strömbäck et al., 2012: 724). In contrast, for journalists of commercial broadcasters it was most important that an event 'increases people's insights and knowledge' (Strömbäck et al., 2012: 724). For journalists of tabloids, it was more crucial to first cover an event than for public or commercial broadcasters and they put more emphasis on the availability of good pictures. These findings lead to the expectation that content differences between public and commercial news are to be found.

2.3. Hypotheses: The revenue model and news content

Various studies explore news frames differences across public and commercial outlets. A European comparison reveals that public broadcasters have a larger share of the more abstract thematic news frames than commercial broadcasters or tabloid newspapers (Brekken et al., 2010). The latter use

episodic frames that reduce the complexity of issues more often. For economic news, Kostadinova and Dimitrova (2012) found for Bulgaria that the frequency of thematic and economic consequence frames depends on the size of the audience, as they were more often used by specialised news outlets than news outlets for a general audience. Likewise, Doyle (2006) shows that economic news topics differ depending on the assumed economic literacy of the audience. While news for an economically literate audience covers a wide range of economic topics, including meta-aggregate level, news for a lay audience has a personal financial dimension such as house prices or interest rates, or a political angle.

A personal dimension in news topics can be defined as obtrusive. According to Demers et al. (1989: 789), a topic is obtrusive when 'people can have personal experience with an issue' or it relates to 'events in their daily life' (Lee, 2004: 152). We expect that commercial news outlets select news stories that are more obtrusive to their audience. Public news outlets should not have a preference for obtrusive news; rather their topics should be balanced according to real-world events:

H1: Economic news topics of commercial news are more often obtrusive than those of public news.

Not only topic, but also tone differences may exist between public and commercial news due to differences in perceived roles and different evaluations of objectivity. Godler and Reich (2013) state that ownership, among other factors, produce variance in journalists' takes on reality depiction. Hampton (2008) argues that the objectivity ideal emerged from Reuters and BBC but may be denied by commercial news outlets. Indeed, for journalists of tabloid newspapers, value judgments and subjectivity were clearly important in a Danish study (Skovsgaard et al., 2013). This study also reveals that role conceptions explain the implementation of the objectivity norm. Köcher (1986) found that British and German journalists see their roles as both providing analysis and interpretation of complex problems and getting news to the public quickly, neutrally and precisely. These were still the most important role perceptions of German journalists in 2005 (Weischenberg et al., 2012) and German newspapers business journalists in 2003 (Spachmann, 2005). However, no differences between public

and commercial journalists were analysed. Following Hampton (2008), interpretative or objective reporting may have higher or lower importance depending on the type of media outlet:

H2: Economic news tone of public news is more often neutral than the tone of commercial news.

2.4. Research question: Dynamics in news content during the financial crisis

News content characteristics differ not only across media but also over time. Major events can lead to changes in news content. Magee (2013) argues that the 9/11 terrorist attacks led to an increase in war, peace, and conflict stories within the flagship news magazine of the U.S. National Public Radio. The financial crisis may also represent an important international event leading to remarkable changes in economic news.

However, financial journalism has been criticized for its inability to alert the public about the financial crisis (Manning, 2013; Marron et al., 2010). For Germany, economic news is often characterized as negative and failing to show the complexity of the economy (Hagen, 2005). Bähr (2009) shows that negative or pessimistic descriptions of the crisis dominated in major German online news outlets.

Still, certain news outlets may be first movers in changes in economic news tone or volume during the financial crisis. Strömbäck et al. (2012) has shown that journalists of tabloids consider it most important to first cover an event. Lagging changes among news outlets can be explained with mutual observation leading to intermedia agenda setting (Roberts and McCombs, 1994; Vliegenthart and Walgrave, 2008). The temporality may run from high to lower status news organizations or between media types, e.g. from print to TV (Roberts and McCombs, 1994). Most frequent strategic intermedia responses to competitor's news are to follow or upgrade own news (Lim, 2011). That is, volume or tone in economic news may change with one news outlet prior to another. Therefore, we ask the research question:

RQ1: How did volume and tone in economic news change during the financial crisis among public and commercial news outlets?

3. Case of Germany

The German media system consists of the non-profit public broadcasters *ARD* and *ZDF* that are mainly financed by licence fees (since January 2013 by an excise duty per household) adding up to more than 80 per cent of revenues (Esser et al., 2012) as well as commercial broadcasters and newspapers that are fully financed through advertising, sponsorship and the like and/or retail price. The German public broadcasting is one of the most expensive systems relating licence fees to production costs (Potschka, 2011: 117).

In Germany, TV and daily newspapers are the most important sources for current affairs for the public (Ecke, 2011: 19). With regard to reach or circulation, the main TV and newspaper news sources in Germany were selected for this study. These are the public flagship news shows *ARD Tagesschau* and *ZDF heute*, the commercial news show *RTL Aktuell* and the tabloid newspaper *BILD*. While the reach of *ZDF heute* declined from 2002 to 2010, it remained quite stable for *ARD Tagesschau* and the commercial counterpart (see Table 1). The tabloid newspaper faced declining circulation from four to about three million copies. Other German newspapers or magazines have a far lower circulation and therefore are not included.

In the public (commercial) service news shows, 70 (40) per cent of the content is used for political and economic news (Marcinkowski and Marr, 2010: 489). Although *BILD* is not specialised in economic news as a 'prototypical representative of tabloid journalism' (Klein, 1998: 79), its news influences economic judgments of the public (Hagen, 2005).

Workforce differs strongly across the news outlets. About 145 journalists and editors work cross-channel for *ARD-aktuell*, the editorial department for 20 daily *Tagesschau* editions, the online news outlet *tagesschau.de*, the news channel *tagesschau24*, the late night news *Nachtmagazin* and the weekly

news show *Wochenspiegel* (Gniffke, 2013). About 10 to 15 journalists and editors work for *ZDF heute* (ZDF, 2012) and 15 for *RTL Aktuell* (RTL interactive GmbH, 2013). For *BILD*, a network of 883 journalists and editors produce content for 25 daily regional and local editions (bild.de, 2012).

Table 1. Reach/circulation per news outlet

| News outlet | <i>ARD Tagesschau</i> | <i>ZDF heute</i> | <i>RTL Aktuell</i> | <i>BILD</i> |
|-------------------|------------------------|------------------------|----------------------------|---|
| | Public evening news | Public evening news | Commercial evening news | Tabloid, commercial daily newspaper |
| Reach/circulation | | | | |
| in 2002 | 9.62m | 5.17m | 3.89m | 4.05m |
| in 2010 | 9.14m | 3.97m | 3.91m | 2.94m |

Note. News show reach taken from Zubayr and Gerhard (2005; 2012). Circulation of *BILD* refers to quarter 4 of each year from Monday to Friday and is retrieved from IVW (2013).

4. Data

This study compares news topics, tone and volume on the economy of the four daily news outlets with the highest reach/circulation in Germany. News topics, tone, and volume data for economic news in the observation period from 2002-10 are provided by the research company Media Tenor. The coding was done on original print copy and broadcasting by professionally-trained full-time coders. Inter-coder reliability continuously reaches 87 per cent at least (Media Tenor, 2012). Units of analysis are every print article and every report on politics or the economy in text or picture. Since there is a strong political dimension to economic reporting (Doyle, 2006: 444) and politics and the economy are interwoven, especially during the financial crisis when many governmental interventions were made

(Quiring and Weber, 2012; Sommer, 2013), it is necessary to include economic-political news stories. In the newspaper *BILD*, the first three pages were the basis for coding since these pages comprise political and economic topics. All reports in TV news were subject to coding (except for the weather forecast). Qualifying criteria for further coding were economic topics, recent German domestic politics, German foreign affairs, and reports on the European Union or its institutions. The number of coded news stories is 7'289 (*ARD Tagesschau*), 7'311 (*ZDF heute*), 4'559 (*RTL Aktuell*), and 7'308 (*BILD*) summing up to a total of 26'467.

All qualified articles and reports obtained a news tone measure, which represents journalists' interpretation. News tone was coded positive (1), neutral (0), or negative (-1). Only predominantly judgmental statements or descriptions of actors or situations by journalists, concerned persons or parties, adversaries or independent actors such as politicians, business people, or scientists lead to a positive or negative news tone coding. News tone was coded as positive when explicitly positive terms were mentioned, such as *good*, *excellent*, or *promising* or the topic was embedded in an implicitly positive context, such as *decreasing unemployment figures* or *company profits*. If no predominant explicitly or implicitly positive or negative tendencies were identifiable, the article or report was coded as neutral.

News topics are a result of journalists' selection and comprise state/context/location (e.g. economic policy, national debt, laws, taxes, infrastructure, foreign direct investments), employment, the general economy, consumer/business sentiment, productivity/costs of labour, prices/inflation, GNP/GDP, external trade, currency, order entries, income, and an 'other' category (see Appendix). Some of these economic topics can be directly encountered by the audience, i.e. are obtrusive to the audience (Lee, 2004; Demers et al., 1989), such as employment, labour market, prices and inflation, consumer sentiment, income, and currency. Such topics might have a higher relevance for viewers and provide more practical relevance than other economic information.

The observation period from 2002 to 2010 starts after the global dotcom crisis in 2000 with slower economic growth, a minor recession in 2003/4 followed by a growth period until 2008, regarding the German GDP. It includes the subprime mortgage crisis at the end of 2006, merging into the financial banking crisis in late 2007, leading to negative global economic developments in 2008-9 and the international debt crisis (Bussière et al., 2013). For the analysis, we compare the pre-financial-crisis period from 2002-06 and the financial-crisis period from 2007-10.

5. Results

5.1. Changes in economic news volume and tone during the financial crisis

Within this section we compare the development of news volume and tone for the news outlets *Tagesschau*, *heute*, *RTL Aktuell* and *BILD* by year from 2002-10 to answer RQ1. Figure 1 shows the absolute volume of economic news per year as well as the average news tone and its standard deviations. Figure 2Figure 1. Development of volume (bars) and tone (dots with Stdev.) of economic news

displays the development of standard deviations of news tone average per year. Additionally, Table 3 compares the average news tone of all four news outlets per year, revealing significant differences.

Tagesschau and *heute* show a very similar reporting quantity and news tone in economic news throughout the years (Figure 1). Both public news outlets double their volume of reports in 2008-10 compared to earlier years. This indicates that journalistic selection processes changed for *Tagesschau* and *heute*. The public news tone is negative on average, with an exception in 2006/7 when an economic upturn occurred in Germany. In these years, the standard deviation of news tone also increased, indicating a broader journalistic interpretation range (Figure 1).

The commercial news outlet *RTL Aktuell* steadily increased its volume of reports throughout the observation period (Figure 1). In total, *RTL Aktuell's* news volume is lower compared to the public news.

However, the news volume follows the increasing pattern of the public news outlets. The decrease in the development of the standard deviation in news tone of *RTL Aktuell* from 2007 onwards is remarkable (Figure 1). The tone varies less strongly than public news outlets or *BILD*. Journalistic interpretation is narrower and retains a slightly negative tone from 2007 onwards. Therefore, *RTL Aktuell* can be regarded as a news outlet putting reasonable emphasis on economic information, but it does not get close to the information quantity and tone variety of public news outlets.

Despite being a boulevard newspaper, *BILD* has a higher news volume in economic news until 2007 compared to all other news outlets (Figure 1, Table 3). However, three pages in a newspaper may fit more articles than stories appearing in a 15-minutes news show. In 2008, a sudden decrease in *BILD* articles occurs. Hence, journalistic selection processes changed during the time of the financial crisis. Also, interpretation processes differ from other news outlets. *BILD*'s news tone increases from 2007 onwards and is significantly more positive compared to other news outlets in 2007, 2008, and 2010 (Table 3). However, the standard deviation increases during the time of the financial crisis and is larger than the standard deviation of other news outlets (Figure 1), indicating a broader range of journalistic interpretation of economic topics.

Additionally, a vector autoregressive (VAR) model can test which news outlet is a first mover when it comes to changes in volume and tone. In a VAR model, the past of a variable is included to measure an impact on the current status of another variable. Therefore, VAR modelling allows dynamic and interdependent analyses between intervening variables of different time lags (Sims, 1980). A VAR model for the news of different news outlets ($N1, N2, N3, N4$) including p time lags can be written

$$N1_t = \alpha + \beta_1 N1_{t-1} + \dots + \beta_p N1_{t-p} + \sigma_1 N2_{t-1} + \dots + \sigma_p N2_{t-p} + \zeta_1 N3_{t-1} + \dots + \zeta_p N3_{t-p} + \lambda_1 N4_{t-1} \dots + \lambda_p N4_{t-p} + \varepsilon_t$$

where α and ε are the constant and error terms, and β, σ, ζ , and λ are the coefficients. One VAR model was estimated for news volume and one for news tone, both for the time period 2007-10 on monthly data frequency. Results are illustrated in Figure 3. The public news outlets *Tagesschau* and *heute* are first

movers in volume changes during the time of the financial crisis. *BILD* tends to react with a decrease on an increase in economic news volume of *Tagesschau* (dashed arrow). *RTL Aktuell* follows changes in news volume according to *heute*. *BILD*, however, changes its news tone prior to *Tagesschau*. Also *heute* tends to precede *Tagesschau* in news tone changes. Therefore, journalistic selection and interpretation processes did not change instantly among all news outlets at the same time. But public news outlets react quickly to changing real-world conditions by increasing news volume. *BILD* is the first outlet to react by adapting news tone.

Figure 1. Development of volume (bars) and tone (dots with Stdev.) of economic news

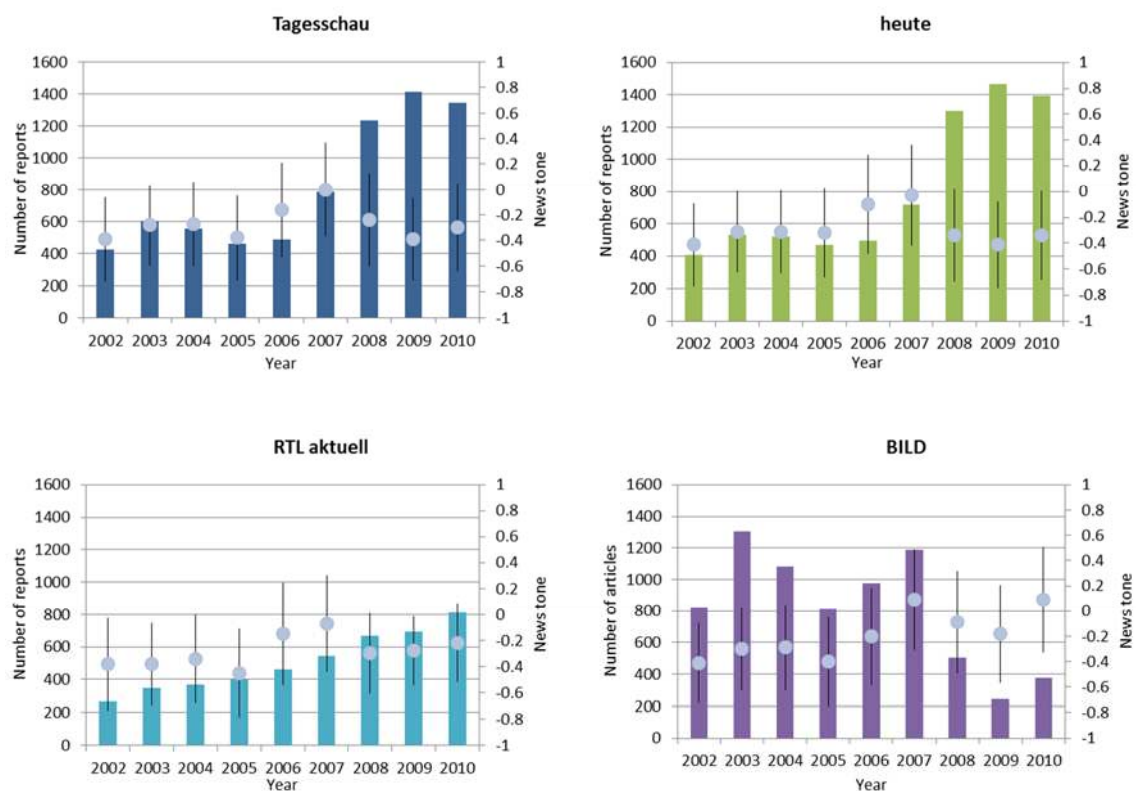


Figure 2. Standard deviation development of economic news tone average

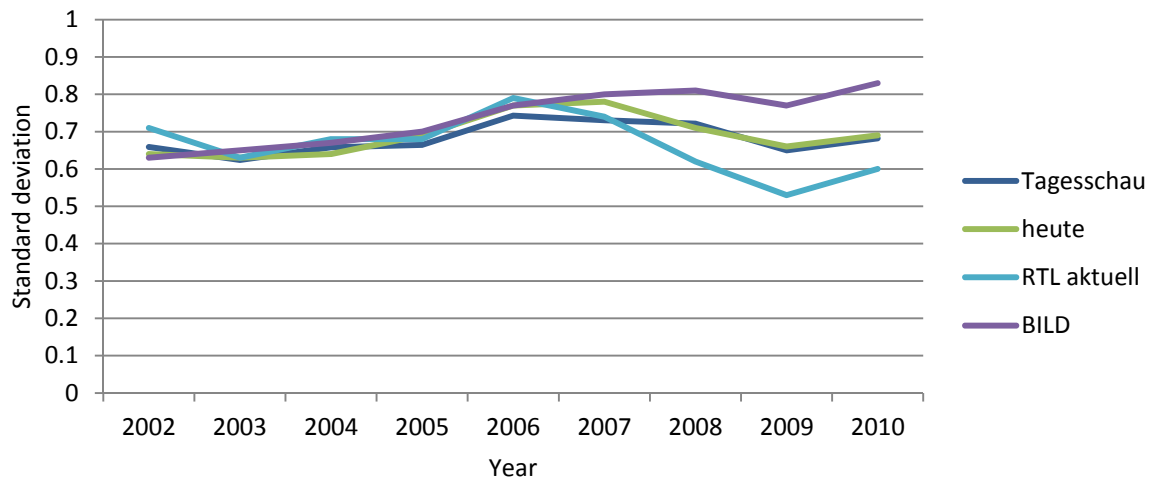
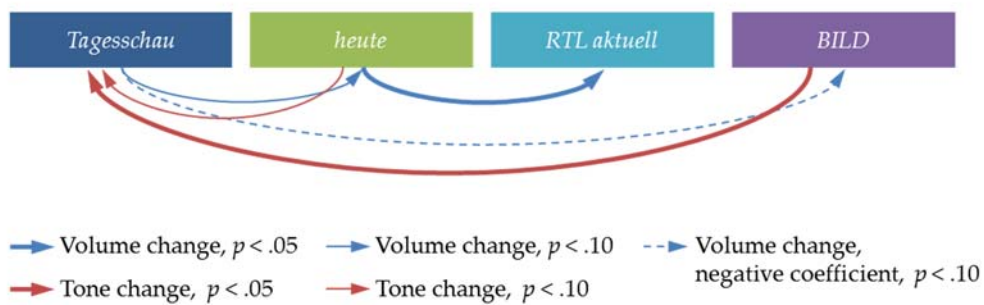


Figure 3. Preceding volume and tone changes in economic news, 2007-2010



5.2. Emphasis on obtrusive topics

In Table 2, we evaluate the relative shares of each topic compared to the total economic news of each news outlet to test H1. In the 2002–2006 period, no clear differences between the volumes of obtrusive topics can be found among news outlets. News on the state/context/location comprise about half of the total economic news. This category also contains political aspects, which public broadcasters more frequently emphasise. About one-fifth to one-quarter in economic news deals with the obtrusive topic of employment. Against expectations, the tabloid *BILD* reports more often about the general economy—which is a rather abstract and unobtrusive topic—than other news outlets. Prices and

inflation as well as income and currency are less frequently reported obtrusive topics among all news outlets.

Overall, in the 2007–2010 period, the topic state/context/location remains the most important one. However, public news reports significantly more often about this unobtrusive topic than commercial news. The general economy covers up to one-fifth in economic news. This unobtrusive topic is more often a news topic in *BILD* and *heute* than in *Tagesschau*. In favour of news on the general economy, the volume of news on the obtrusive topic of employment decreased in the public news. In line with expectations, the obtrusive topics of employment and consumer and business sentiment, as well as prices and inflation, are significantly more often part of commercial than of public news. Against expectations, however, the unobtrusive topics of external trade and GNP/GDP are more often covered in commercial news. Because fewer than three out of 100 reports deal with these unobtrusive topics, this result is negligible.

From 2007 onwards, obtrusive topics add up to a greater share within commercial news compared to public news which is in line with our expectations. Therefore, we partly accept H1.

Table 2. Obtrusive and unobtrusive economic news topics across news outlets

| Topics | <i>Tagesschau</i> (A) | | <i>heute</i> (B) | | <i>RTL Aktuell</i> (C) | | <i>BILD</i> (D) | |
|----------------------------|-----------------------|--------------------|------------------|--------------------|------------------------|------|-----------------|---------------------|
| | n | % | n | % | n | % | n | % |
| | 2002-06 | | | | | | | |
| State/context/ location | 1'438 | 57.2 ^{CD} | 1'362 | 56.0 ^{CD} | 887 | 48.2 | 2'562 | 51.3 |
| Employment | 544 | 21.6 | 520 | 21.4 | 441 | 24.0 | 1'152 | 23.1 |
| General economy | 195 | 7.8 | 200 | 8.2 | 150 | 8.2 | 522 | 10.5 ^{ABC} |

| | | | | | | | | |
|-----------------------------|-------|---------------------|-------|--------------------|-------|--------------------|-------|--------------------|
| Consumer/business sentiment | 82 | 3.3 | 103 | 4.2 | 136 | 7.4 ^{ABD} | 193 | 3.9 |
| Productivity/labour costs | 77 | 3.1 ^D | 53 | 2.2 | 33 | 1.8 | 97 | 1.9 |
| Prices/inflation | 47 | 1.9 | 44 | 1.8 | 31 | 1.7 | 138 | 2.8 |
| GNP/GDP | 19 | 0.8 | 12 | 0.5 | 9 | 0.5 | 22 | 0.4 |
| External trade | 13 | 0.5 | 16 | 0.7 | 6 | 0.3 | 38 | 0.8 |
| Income | 2 | 0.1 | 0 | 0.0 | 10 | 0.5 ^A | 12 | 0.2 |
| Order entries | 2 | 0.1 | 4 | 0.2 | 6 | 0.3 | 11 | 0.2 |
| Currency | 2 | 0.1 | 7 | 0.3 | 5 | 0.3 | 6 | 0.1 |
| Other | 93 | 3.7 | 111 | 4.6 | 126 | 6.8 ^{ABD} | 242 | 4.8 |
| Total | 2'514 | 100.0 | 2'432 | 100.0 | 1'840 | 100.0 | 4'995 | 100.0 |
| 2007-10 | | | | | | | | |
| State/context/location | 2'788 | 58.4 ^{BCD} | 2'667 | 54.7 ^{CD} | 1'239 | 45.6 ^D | 823 | 35.6 |
| General economy | 794 | 16.6 | 937 | 19.2 ^A | 493 | 18.1 | 456 | 19.7 ^A |
| Employment | 523 | 11.0 | 489 | 10.0 | 496 | 18.2 ^{AB} | 387 | 16.7 ^{AB} |
| Consumer/business sentiment | 107 | 2.2 | 140 | 2.9 | 127 | 4.7 ^{AB} | 88 | 3.8 ^A |
| Productivity/labour costs | 103 | 2.2 | 116 | 2.4 | 44 | 1.6 | 57 | 2.5 |
| Prices/inflation | 89 | 1.9 | 133 | 2.7 ^A | 133 | 4.9 ^{AB} | 160 | 6.9 ^{ABC} |
| Currency | 28 | 0.6 | 24 | 0.5 | 11 | 0.4 | 81 | 3.5 ^{ABC} |
| External trade | 20 | 0.4 | 30 | 0.6 | 15 | 0.6 | 72 | 3.1 ^{ABC} |

| | | | | | | | | |
|---------------|-------|-------|-------|------------------|-------|------------------|-------|--------------------|
| GNP/GDP | 11 | 0.2 | 13 | 0.3 | 17 | 0.6 ^A | 39 | 1.7 ^{ABC} |
| Order entries | 10 | 0.2 | 13 | 0.3 | 2 | 0.1 | 6 | 0.3 |
| Income | 1 | 0.0 | 10 | 0.2 ^A | 5 | 0.2 | 4 | 0.2 |
| Other | 301 | 6.30 | 307 | 6.30 | 137 | 5.00 | 140 | 6.10 |
| Total | 4'775 | 100.0 | 4'879 | 100.0 | 2'719 | 100.0 | 2'313 | 100.0 |

Note. A, B, C, and D indicate statistically significant differences of percentages between columns

($p < .05$, two-sided Z-test, Bonferroni corrected).

Obtrusive topics are marked in grey.

5.3. News tone neutrality

Table 3 displays the average news tone for the four news outlets per year from 2002-10 to test H2. For all news outlets, the news tone is negative until 2005, and increases to neutral until 2007 in parallel with an economic upswing. Afterwards, the public as well as the commercial TV news tone decreases. The tone of the tabloid remains neutral to positive, against expectations. No systematic significant differences can be detected between public and commercial news outlets. Therefore, we dismiss H2.

Table 3. News tone and share of economic news across news outlets

| | <i>Tagesschau</i> (A) | | | <i>heute</i> (B) | | | <i>RTL Aktuell</i> (C) | | | <i>BILD</i> (D) | | |
|------|-----------------------|--------|--------------------|--------------------|--------|--------------------|------------------------|--------|--------------------|----------------------|--------|---------------------|
| Year | Mean | Stdev. | % | Mean | Stdev. | % | Mean | Stdev. | % | Mean | Stdev. | % |
| 2002 | -0.39 | 0.66 | 22.0 | -0.41 | 0.64 | 21.3 | -0.38 | 0.71 | 13.8 | -0.41 | 0.63 | 42.9 ^{ABC} |
| 2003 | -0.28 | 0.62 | 21.5 | -0.31 | 0.63 | 19.2 | -0.38 | 0.63 | 12.5 | -0.30 | 0.65 | 46.8 ^{ABC} |
| 2004 | -0.27 | 0.66 | 21.9 | -0.31 | 0.64 | 20.7 | -0.34 | 0.68 | 14.6 | -0.29 | 0.67 | 42.8 ^{ABC} |
| 2005 | -0.38 | 0.66 | 21.4 | -0.32 ^C | 0.69 | 22.0 | -0.45 | 0.68 | 18.7 ^{AB} | -0.40 | 0.70 | 37.9 ^{ABC} |
| 2006 | -0.16 | 0.74 | 20.0 | -0.10 | 0.77 | 20.6 | -0.15 | 0.79 | 19.0 ^{AB} | -0.20 | 0.77 | 40.4 ^{ABC} |
| 2007 | 0.00 | 0.73 | 24.2 | -0.03 | 0.78 | 22.2 | -0.07 | 0.74 | 16.8 ^B | 0.09 ^{ABC} | 0.80 | 36.8 ^{ABC} |
| 2008 | -0.24 | 0.72 | 33.3 ^{CD} | -0.34 | 0.71 | 35.1 ^{CD} | -0.30 | 0.62 | 18.0 ^D | -0.09 ^{ABC} | 0.81 | 13.6 |
| 2009 | -0.39 | 0.65 | 37.0 ^{CD} | -0.41 | 0.66 | 38.4 ^{CD} | -0.28 ^{AB} | 0.53 | 18.2 ^D | -0.18 ^{AB} | 0.77 | 6.4 |
| 2010 | -0.30 | 0.68 | 34.2 ^D | -0.34 | 0.69 | 35.5 ^D | -0.22 ^{AB} | 0.60 | 20.7 ^D | 0.09 ^{ABC} | 0.83 | 9.6 |

Note. A, B, C, and D indicate statistically significant differences of means between columns ($p < .05$, two-sided *T*-test, Bonferroni corrected) and differences of percentages between columns ($p < .05$, two-sided *Z*-test, Bonferroni corrected)

6. Discussion

This study compares topics, volume and tone in economic news for TV news of two public and a commercial broadcaster and a tabloid newspaper from 2002 to 2010 in Germany. It links two dimensions: the organisational level with dynamic changes over time. Results show that also within hard news, commercial news outlets provide topics that are closer related to the everyday life of consumers especially during the financial crisis. Considerable news differences are found between media types. During the financial crisis, both news tone and volume differed clearly between the

tabloid newspaper and the TV shows. However, some differences can be ascribed to the revenue model incentives. Overall, results confirm a structural bias according to Hofstetter (1976) caused by the character of the news outlets.

Despite different editorial organisations and numbers of staff, economic news of the public broadcasters was very similar. Against expectations, public news tone is not found to be more neutral than commercial news tone. Rather, a negative tone seems to be standard in economic news throughout the TV news outlets, which is in line with previous research for Germany (Brettschneider, 2003). Before 2007, all news outlets interpreted economic news in a similar range. From 2007 onwards, *BILD*'s interpretation varied most broadly and *RTL aktuell*'s least broadly. Although the *ARD Tagesschau* sets the intermedia agenda (Weischenberg et al., 1994) and therefore should be a first mover, the tabloid news was the first that changed its news tone in the crisis years, according to the higher importance for tabloid journalists to be a first mover (Strömbäck et al., 2012).

Economic news topics of different news outlets are not fundamentally different from each other during 2002 to 2006, but differ among news outlets from 2007 onwards. Economic news topics for the commercial broadcaster and the tabloid tend to be more obtrusive, i.e. related to the everyday life of consumers from 2007 onwards. This indicates that commercial news outlets emphasise delivering *news that's fit to sell* (Hamilton, 2004) especially during the financial crisis. As the main information source of the public for the financial crisis was TV news (Quiring and Weber, 2012), competition for audiences may have increased among news outlets. We conclude that orientation to the needs of a general lay audience was more important to commercial than to public media.

In line with Strömbäck et al. (2012), the dramatic event of the financial crisis lead to a strong increase in economic news volume of public broadcasters—whereas the commercial broadcaster increased news volume only moderately, and the tabloid decreased news volume. Aalberg et al. (2010) showed that

countries where public news has a strong standing supply more news. Our study reveals that public channels are pioneers in news volume increase and the commercial news show follows their increase.

RTL Aktuell's constant increase in economic news volume can be regarded as a strategy providing as much information as necessary to compete with public news for lay audiences. *RTL Aktuell's* reach was close to and partly exceeding the reach of *heute* from 2007-10 (Zubayr and Gerhard, 2011).

In conclusion, the revenue model and its economic goals and incentives as well as competitor behaviour determine the journalistic selection processes and ultimately news content. In economic news, the analysed news outlets produce a greater variety of news topics and volume compared to news tone across public and commercial news outlets. That is, selection processes seem to be more strongly determined by the revenue model incentives than interpretation processes. Competitor monitoring and the need to successfully compete for audiences may have supported news volume and topic variety, as increased competition suggests (Wehmeier, 2001).

However, the focus of this study on organizational influences might fall short since news content is also affected by individual, procedural, organizational, and structural influences which are highly interconnected (Hanitzsch et al., 2010; Shoemaker and Reese, 1996). Differing target audiences and journalistic roles, and news values serve as a key tie between organizational influences and news making. Limitations of the results are the missing knowledge about the actual journalistic roles, news values and the actual assumptions and consideration of audience preferences of journalists. Although individual, procedural, and organizational influences can well explain content variation, the separate influence of each influence factor cannot be estimated. Also, the comparison of different media categories, TV and print, may be misleading. Being a tabloid newspaper, *BILD* might not compete directly with TV evening news, as the tabloid is used in the morning or during the day. However, as the commercial newspaper with the highest circulation in Germany, insights into *BILD* news are valuable.

The content analysis covering eight years of all economic news stories of the four major German news outlets allows a valid picture on journalistic outcome as the result of journalistic selection and interpretation. Given that the need to sell target audiences to advertisers guides content production, this study reveals that dependency on advertising income is reflected in news content of public versus commercial news outlets. The major event of the financial crisis served as a disruptive incident leading to changes in journalistic selection and interpretation while taking the market leader's behaviour into account. Hence, advertising income dependency and observation of competitor behaviour transmits to operative journalistic practices and decisions, which in turn determine journalistic outcome.

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Appendix

Table A1. Detailed content of topic categories

| Topics | Details |
|------------------------|---|
| State/context/location | Economic policy, national debt, laws, orders, bureaucracy, general ability to compete, employment protection, environmental specifications, protection against dismissal, business tax, income tax, value added tax, subsidies, tariff policy, infrastructure, foreign direct investments |

| | |
|-----------------------------|--|
| Employment | Employment, unemployment, occupation, apprenticeships, labour force participation rate, professional education system, qualification of the population |
| General economy | General economic situation, economic growth |
| Consumer/business sentiment | public opinion on the economic situation, consumer sentiment, business climate, future prospects, investment plans |
| Productivity/labour costs | Labour costs, ancillary labour costs, productivity |
| Prices/inflation | Price indices, inflation, applied interest rate |
| GNP/GDP | National income, GDP, GNP |
| External trade | Orders, foreign demand |
| Income | Income, per capita income |
| Order entries | Orders, domestic demand |
| Currency | EURO exchange rate, Deutsche Mark exchange rate |
| Other | Bankruptcies, start-ups, investments, innovations, other |

Obtrusive topics are marked in grey.